

Silicon NPN Power Transistor

2SC4544

DESCRIPTION

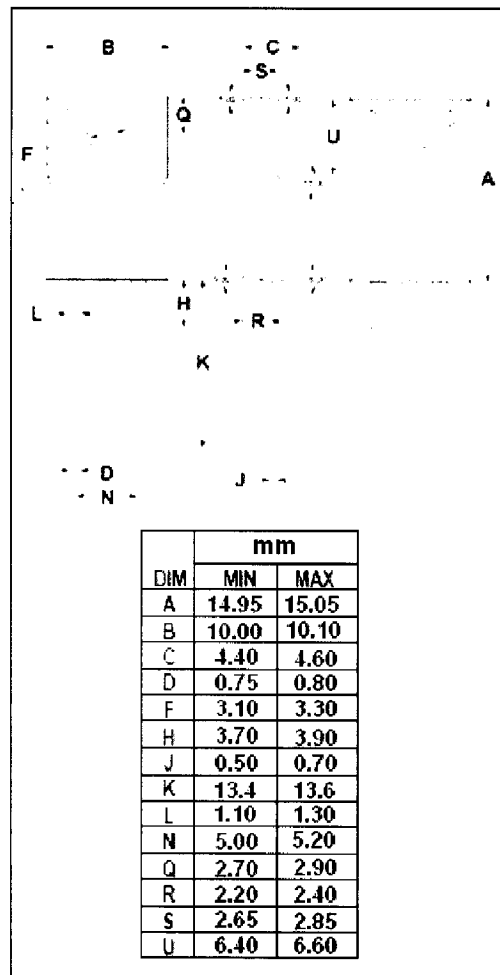
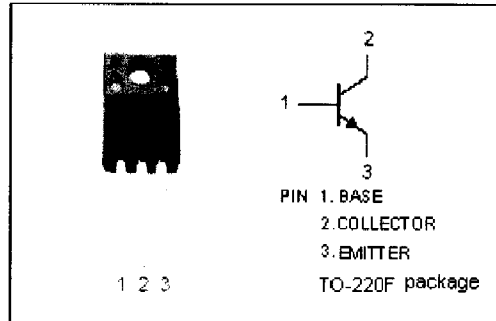
- Collector-Emitter Breakdown Voltage-
 : $V_{(BR)CEO} = 300V(\text{Min})$
- Small Collector Output Capacitance

APPLICATIONS

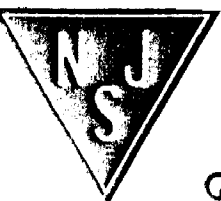
- High voltage switching and amplifier applications.
- Color TV horizontal driver applications.
- Color TV chroma output applications.

ABSOLUTE MAXIMUM RATINGS($T_a=25^\circ\text{C}$)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	300	V
V_{CEO}	Collector-Emitter Voltage	300	V
V_{EBO}	Emitter-Base Voltage	7	V
I_C	Collector Current-Continuous	0.1	A
I_B	Base Current-Continuous	50	mA
P_C	Collector Power Dissipation @ $T_c=25^\circ\text{C}$	8	W
	Collector Power Dissipation @ $T_a=25^\circ\text{C}$	2	
T_J	Junction Temperature	150	$^\circ\text{C}$
T_{stg}	Storage Temperature	-55~150	$^\circ\text{C}$



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ELECTRICAL CHARACTERISTICS

$T_j=25^\circ\text{C}$ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage	$I_C=1\text{mA}; I_B=0$	300			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C=10\text{mA}; I_B=1\text{mA}$			1.0	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C=10\text{mA}; I_B=1\text{mA}$			1.0	V
I_{CBO}	Collector Cutoff Current	$V_{CB}=240\text{V}; I_E=0$			1.0	μA
I_{EBO}	Emitter Cutoff Current	$V_{EB}=7\text{V}; I_C=0$			1.0	μA
h_{FE-1}	DC Current Gain	$I_C=4\text{mA}; V_{CE}=10\text{V}$	20			
h_{FE-2}	DC Current Gain	$I_C=20\text{mA}; V_{CE}=10\text{V}$	30		200	
C_{OB}	Output Capacitance	$I_E=0; V_{CB}=20\text{V}; f=1\text{MHz}$		3.0		pF
f_T	Current-Gain—Bandwidth Product	$I_C=20\text{mA}; V_{CE}=10\text{V}$	50	70		MHz